

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

An apparatus and method for sputter depositing a magnetic film on a substrate to produce a magnetic device such as magnetic recording heads for reading digital information from a storage medium. The apparatus of the invention includes a sputtering chamber containing a target and a substrate, and a magnet array disposed within the chamber to form a substantially parallel magnetic field at a surface of the substrate. The sputtering chamber reduces interference between the magnetron and the magnet array by providing a long throw distance and/or a grounded collimator. The magnet array is preferably a circular ring.